REMARKS

This application has been carefully reviewed in light of the Office Action dated September 20, 2004 (Paper No. 8). Claims 1 to 26 are in the application, of which Claims 1, 24 and 26 are independent. Reconsideration and further examination are respectfully requested.

Applicants thank the Examiner for his indication that Claims 12, 13 and 15 to 23 have merely been objected to, but would be allowable if rewritten in independent form.

Claims 1 to 11 and 14 were rejected under 35 U.S.C. § 102(e) over U.S. Patent 6,198,843 (Nakauchi). The rejection is respectfully traversed, since it is not believed that Nakauchi makes a region-by-region association of one of plural gamut mapping algorithms based on analysis of spatial frequency content for each region, as discussed more fully below.

Specifically, the invention concerns gamut mapping of an original image using plural different gamut mapping algorithms. Spatial frequency content of the original image is analyzed, and a region-by-region association of the original image with one of the plural gamut mapping algorithms is made, based on the analysis of spatial frequency content. Thereafter, each region is gamut mapped using the associated gamut mapping algorithm.

As explained in connection with one representative embodiment of the invention, there might be two gamut mapping algorithms, such as a clipping gamut mapping algorithm and a compression gamut mapping algorithm (see page 11 beginning at

line 17 of the subject application). Each has different color reproductivities, respectively. An analysis of spatial frequency content of the original image is made. In the representative embodiment, each pixel of the original image (where the claimed "region" corresponds to single pixels) is associated with one of these two gamut mapping algorithms, based on the analysis of spatial frequency content. Thereafter, using the selected gamut mapping algorithm, each pixel is gamut mapped. By virtue of this arrangement, since two different gamut mapping algorithms are used in the same image, color reproductivity of the output image can be strikingly improved relative to prior art arrangements where a single gamut mapping algorithm was used for the entire image.

Nakauchi is representative of prior art arrangements in which a single gamut mapping algorithm was used for the entire image. A cost function is defined by using perceptual difference (PD, see Equation (5)) and an accuracy function ("M", see Equation (7)) of a bi-directional color conversion. A gamut mapping algorithm is selected so as to minimize the cost function.

Thus, as Applicants see it, Nakauchi describes selection of a single gamut mapping algorithm for use in the entire image and not a region-by-region selection of gamut mapping algorithms for respectively different regions of the same image. It is true that Nakauchi utilizes spatial frequency content as part of its evaluation and cost function; nevertheless, it is equally true that Nakauchi ultimately results in a single gamut mapping algorithm used by the entire image, and not a region-by-region association of one of plural gamut mapping algorithms based on analysis of spatial frequency content of each region.

It is therefore respectfully submitted that the claims herein are not anticipated by Nakauchi, and withdrawal of the rejection is respectfully requested.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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